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Please address all telephone calls, in the first instance, to **Daniel R. McClure**, at telephone number: (770) 933-9500.

Address all correspondence to:

Daniel R. McClure, Reg. No. 38,962

**THOMAS, KAYDEN, HORSTEMEYER
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I hereby declare that all statements made herein of my/our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statement and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Inventor's Signature:

Hung-Jen Hsu

Date:

2003/08/05

Full Name of First or Sole Inventor: Hung-Jen HSU

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Inventor's Signature:

Chih-Kung Chang

Date:

2003/08/05

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Chung-Sheng Hsiung

Date:

2003/08/05

Full Name of Third Inventor: Chung-Sheng HSIUNG

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Inventor's Signature:

Fu-Tien Wong

Date:

2003/08/05

Full Name of Fourth Inventor: Fu-Tien WONG

Residence: Same as the Post Office Address (Below) Citizenship: Taiwan, R.O.C.

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FORM PTO-1595

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(Rev. 10/02)

OMB No. 0651-0027 (exp. 6/30/2005)

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying part(ies):

- (1) Hung-Jen HSU (3) Chung-Sheng HSIUNG
-
- (2) Chiu-Kung CHANG (4) Fu-Tien WONG

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

2. Name and address of receiving party(ies)

Name: Taiwan Semiconductor Manufacturing Co., Ltd.

Street Address: No. 8, Li-Hsin Rd. 6,
Science-Based Industrial Park
Hsin-Chu, Taiwan 300-77
R.O.C.Additional name(s) & address(es) attached? ☐ Yes ☒ No

3. Nature of conveyance:

- ☒
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- ☐
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-
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- Security Agreement
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- Change of Name
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- ☐
- Other:

Execution Date: August 5, 2003

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:
August 5, 2003

A. Patent application No.(s)

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Daniel R. McClure
Thomas, Kayden, Horstemeier & Risley, L.L.P.
100 Galleria Parkway, Suite 1750
Atlanta, Georgia 30339-5948

6. Total number of applications/patents involved: [1]

7. Total fee (37 CFR 3.41) \$ 40.00

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Daniel R. McClure

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Date

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ASSIGNMENT

WHEREAS, Hung-Jen HSU, Chiu-Kung CHANG, Chung-Sheng HSIUNG and Fu-Tien WONG hereafter referred to as ASSIGNOR, has/have invented certain new and useful improvements as described and set forth in the below identified application for United States Letters Patent:

Title: IMAGE SENSOR WITH IMPROVED UNIFORMITY OF EFFECTIVE INCIDENT LIGHT
Filed: _____ Serial No. _____
Executed on: August 5, 2003

WHEREAS, Taiwan Semiconductor Manufacturing Co., Ltd. of No.8, Li-Hsin Rd. 6, Science-Based Industrial Park Hsin-Chu, Taiwan 300-77, R.O.C. hereinafter referred to as ASSIGNEE, is desirous of acquiring ASSIGNOR'S interest in the said invention and application and in any U.S. Letters Patent which may be granted on the same;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that, for good and valuable consideration, receipt of which is hereby acknowledged by Assignor, Assignor has/have sold, assigned and transferred, and by these presents does/do sell, assign and transfer unto the said Assignee, and Assignee's successors and assigns, all his/her/their rights, title and interest in and to the said invention and application and all future improvements thereon, and in and to any Letters Patent which may hereafter be granted on the same in the United States, the said interest to be held and enjoyed by said Assignee as fully and exclusively as it would have been held and enjoyed by said Assignor had this Assignment and transfer not been made, to the full end and term of any Letters Patent which may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

Assignor further agrees/agree that he/she/they will, without charge to said Assignee, but at Assignee's expense, cooperate with Assignee in the prosecution of said application and/or applications, execute, verify, acknowledge and deliver all such further papers, including applications for Letters Patent and for the reissue thereof, and instruments of assignment and transfer thereof, and will perform such other acts as Assignee lawfully may request, to obtain or maintain Letters Patent for said invention and improvement, and to vest title thereto in said Assignee, or Assignee's successors and assigns.

IN TESTIMONY WHEREOF, Assignor has/have signed his/her/their name(s) on the date(s) indicated.

Hung-Jen Hsu
Hung-Jen HSU

2003/08/05
Date:

Chiu-Kung Chang
Chiu-Kung CHANG

2003/08/05
Date:

0503-971305/TSMC2003-0516/0515

Page 1 of 4

Chung-Sheng Hsiung
Chung-Sheng HSIUNG

2003/08/05
Date:

Fu-Tien Wong
Fu-Tien WONG

2003/08/05
Date: